In addition, we ask commenters to address with particularity the impact, if any, these proposals may have on public safety and homeland defense

A. Universal Access Transceiver Technology

77 UPS and the FAA both request that we add new rules to Parts 2 and 87[274] to accommodate the use of the 978 MHz frequency by the Universal Access Transceiver (UAT), a datalink technology that has been developed to provide Automatic Dependent Surveillance – Broadcast Service (and other services) to the aviation community.[275] They point out that UAT technology has been field-tested in the FAA Alaska Region over the last two years, using approximately 150 airborne and ground stations, and at several sites within the continental United States, including the FAA Technical Center near Atlantic City, New Jersey, NASA's Runway Incursion Prevention System test bed at Langley, Virginia, and the Dallas-Ft. Worth Airport.[276] We also note that the RTCA's Working Group 5 of Special Committee 186 has approved standards for the UAT datalink.[277] Based on the above, we propose to amend the Part 87 rules to accommodate UAT use of the 978 MHz frequency, as shown in Appendix B, *infra*. Commenters are asked to address the preclusive effect, if any, that this rule change might have on other services, including the possibility of harmful interference to other services Commenters should also consider whether there is a need to make any corresponding changes to the Section 2 106 Table of Frequency Allocations.

B. AMS(R)S Issues

78. *Emissions*. Part 87 of our Rules sets forth the specific emission types that are authorized in the Aviation Radio Service Rockwell Collins, joined by Inmarsat, favors relaxing the Part 87 Rules to authorize the use of any emission type of the licensee's choosing, subject to certain safeguards.[278] Rockwell Collins believes that the Commission should go even further. Rockwell Collins says the Commission should consider eliminating all requirements, other than reporting requirements, that are specific to data rates and modulation types.[279] Rockwell Collins also urges that the Commission establish bandwidth limitations that would accommodate high data rate services such as Swift64, Inmarsat's new 64 kbps service.[280] Rockwell Collins states that such a rule change will permit "a new and innovative aeronautical waveform" that will provide passengers and crew with voice and data services, including the

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[274] 47 C F R Parts 2, 87

[275] UPS Comments at 1, FAA Comments at 3 Automatic Dependent Surveillance – Broadcast (ADS-B) Service automatically broadcasts GPS-derived information on the location, velocity, altitude, heading, etc of an ADS-B equipped aircraft to other ADS-B equipped aircraft and to ADS-B ground stations for distribution to air traffic control systems

[276] UPS Comments at 1, FAA Comments at 3

[277] *See* Minimum Aviation System Performance Standards for Automatic Dependent Surveillance Broadcast (ADS-B), RTCA/DO-242A (RTCA, Inc 2002)

[278] Rockwell Collins Comments at 7, Inmarsat Reply Comments at 1

[279] Rockwell Collins Comments at 10

[280] *Id* On November 19, 2002, Rockwell Collins submitted a request for a waiver of several Part 87 rules to allow certification of its aeronautical satellite communications transceiver type HST-900, which is intended to support Inmarsat's Swift64 service. Letter, dated November 15, 2002, from Linda C Sadler, Director, Federal Affairs, Rockwell Collins, to D'wana R Terry, Chief, Public Safety and Private Wireless Division, Federal Communications Commission, *see also* Wireless Telecommunications Bureau Seeks Comment on Waiver Request by Rockwell Collins, Inc to Allow Certification of Aeronautical Satellite Communications Transceiver to Support Inmarsat's Swift64 Service, *Public Notice*, 18 FCC Rcd 3641 (WTB PSPWD 2003) The Public Safety and Private Wireless Division, Wireless Telecommunications Bureau, granted the waiver request effective April 21, 2003

capability for "significantly higher data rates than those currently supported by the Part 87 Rules."[281] We seek comment on this proposed liberalization of the Part 87 technical rules, particularly with respect to the impact it will have on the interference environment in the Aviation Radio Service. We also ask for comment on whether elimination of the specified requirements is appropriate only for the VHF AMS(R)S band, or whether it should be extended to additional spectrum in the VHF aeronautical band, or perhaps to the whole band. We note, in this regard, that a relaxation of the technical rules may be suitable for certain frequencies for which the FAA or ARINC provides central coordination and oversight, but may not be suitable for other frequencies, such as those allotted for unicom stations Commenters should also address the impact of such a relaxation of the technical rules on radio services operating in adjacent frequency bands, and whether additional emissions limitations would be necessary to protect such adjacent-band services from interference.

79 As an alternative to adopting the Rockwell Collins proposal, we seek comment on Boeing's proposal to at least accommodate code division multiple access (CDMA) emissions in the VHF AMS(R)S band.[282] Boeing observes that the introduction of CDMA technologies can enhance AMS(R)S by enabling satellite operators to provide priority and preemptive access for emergency and safety-related communications without suspending the communications links for less critical communications.[283] We request comment as to whether, if we determine to continue authorizing emission types on a case-by-case basis, we should accommodate CDMA technology, as proposed by Boeing.[284] Finally, commenters are also invited to propose additional rule changes that they believe may still be needed to fully accommodate TDMA emissions in the wake of the *136-137 MHz Order*.[285]

80 *Use of Non-Geostationary Satellite Networks.* Boeing, stating that the Commission originally crafted its AMS(R)S rules solely for satellite networks using geostationary orbit platforms, proposes that the Commission amend the Part 87 Rules to enable use of non-geostationary satellite orbit (NGSO) networks for the provision of AMS(R)S.[286] It notes that both RTCA and ICAO have recently begun addressing the provision of aeronautical mobile satellite services (AMSS) and AMS(R)S by NGSO networks Boeing states that ICAO's Aeronautical Mobile Communications Panel has prepared amendments to the SARPs for this purpose,[287] and RTCA Special Committee 165 has developed MOPS

[281] Rockwell Collins Reply Comments at 2-3. These higher data rates, Rockwell Collins explains, could be achieved by using a low rate Binary Phase Shift Keying (BPSK) signaling channel at 3000 bits/sec and a 16-QAM (Quadrature Amplitude Modulation) modulation waveform at a 33 6 kHz symbol rate over the 1545-1559 MHz (receive) and 1646 5-1660 5 MHz (transmit) frequencies *Id* at 3

[282] Boeing Comments at 7-8

[283] With TDMA or Frequency Division Multiple Access (FDMA) technology, Boeing explains, implementing a system of priority and preemption may require disruption or suspension of lower priority communications because these technologies divide bandwidth based on assigned frequencies, the availability of which is inherently limited. In contrast, a CDMA-based network allocates channel capacity based on available signal power rather than available frequencies Thus, according to Boeing, in lieu of actually preempting lower priority signals, a CDMA-based network can permit a high priority communication to be transmitted at greater than normal power levels, thereby providing additional margins to ensure signal reliability. *Id*

[284] *Id* at 9 Boeing specifically proposes that the Commission amend 47 C.F.R. § 87.137(a) to include an emission designator for CDMA-based communications above 50 MHz (*e g* , 1M5G7W for a 1500 kHz bandwidth), and to amend § 87.141(j) to indicate that transmitters employing CDMA may use either BPSK or QPSK modulations for the spreading code

[285] *See* ¶ 32, *supra*

[286] Boeing Comments at 3-4

[287] *Id* However, as Boeing also observes, ICAO has deferred consideration of formal adoption of these amendments until a new satellite system proposal is presented to ICAO for formal consideration *Id* at 4 n 9.

for next generation satellite systems.[288] Boeing concludes, "[r]ecognizing the work of RTCA and ICAO, the Commission should update its rules for AMS(R)S to reflect the potential use of NGSO networks."[289] We request comment on this proposal, and ask supporters of the proposal to provide specific amendatory language to implement this proposal in the Part 87 Rules. Commenters are asked to consider specifically whether it would be premature to adopt this proposal before RTCA and ICAO finalize standards for the provision of AMS(R)S by NGSO networks.

81 *Broadening the AMS(R)S Rules Beyond the Inmarsat System.* Boeing states that the Part 87 Rules governing AMSS and AMS(R)S were developed primarily for aircraft that communicate via the Inmarsat satellite system and, as a result, they contain technical restrictions that, while appropriate for Inmarsat, "have little or no relevance to satellite networks using different or more advanced technical configurations."[290] Boeing adds that many of the technical requirements that need to be revised are addressed elsewhere in its comments, but identifies a number of other rules that also should be revised to adapt them to non-Inmarsat satellite networks.[291] As an alternative, Boeing suggests that the Commission could simply amend many of these rules to indicate that they apply only to AES operating with the Inmarsat system.[292] ARINC/ATA agrees with Boeing that Part 87 should be amended to take account of the operating parameters of non-Inmarsat satellite systems.[293] We invite comment on this proposal. With respect to Boeing's alternative proposal to simply specify that the existing technical requirements in question apply only to AES operating with the Inmarsat system, commenters should consider what effect such action would have for non-Inmarsat satellite systems.

82 *Technical Requirements* Although we have deferred for the time being the question of whether to specifically authorize AMS(R)S in the 1610-1626 5 MHz and 5000-5150 MHz bands under Part 87,[294] we request comment as to whether additional technical requirements for AMS(R)S are warranted, whether we ultimately do authorize AMS(R)S in these bands or not. The FAA and Boeing

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[288] *Id* at 4 (citing Minimum Operational Performance Standards for Avionics Supporting Next Generation Satellite Systems (NGSS), RTCA DO-262 Change 1 (Nov, 28, 2001), Minimum Aviation System Performance Standards (MASPS) as Used in Aeronautical Data Links, DO-270 (Oct 12, 2001), and Minimum Operational Performance Standards for Avionics Supporting Next Generation Satellite Systems (NGSS), RTCA DO-262 (Dec. 14, 2000)

[289] *Id*

[290] Boeing Comments at 9 We do not necessarily agree with Boeing's comments insofar as they suggest that the technical requirements for AES were developed primarily to accommodate the Inmarsat satellite system. However, it is true that these rules were established when there was a single satellite licensee in the L-band, the American Mobile Satellite Corporation (AMSC), and that the rules therefore may reflect certain assumptions regarding system operating parameters that do not apply to other satellite systems *See AES Order*, 7 FCC Rcd at 5896 ¶ 9. AMSC, a consortium created at the Commission's directive, was granted an MSS license in 1989 and authorized to provide AMS(R)S as well as MSS under that license At that time, the Commission mandated that AMSC incorporate into its overall system design minimum requirements for interoperability with international and other countries' satellite systems, and also required AMSC "to establish appropriate arrangements for handing off aeronautical traffic between its system and others, such as Canada's and INMARSAT's." *See* Amendment of Parts 2, 22 and 25 of the Commission's Rules to Allocate Spectrum for, and to Establish Other Rules and Policies Pertaining to the Use of Radio Frequencies in a Land Mobile Satellite Service for the Provision of Various Common Carrier; Applications of Global Land Mobile Satellite, Inc , et al , *Memorandum Opinion, Order and Authorization*, Gen. Docket No. 84-1234, 4 FCC Rcd 6041, 6055 ¶ 94 (1989).

[291] Boeing Comments at 9-10 Boeing identifies the following rules as among those that should be revised for this purpose. 47 C F R §§ 87 131 (maximum power and emissions); 87 133(a)(7) (frequency tolerance); 87 137 (bandwidth), 87 141(j) (transmission rates), and 87.145(d) (Doppler effect compensation)

[292] *Id* at 10

[293] ARINC/ATA Reply Comments at 7

[294] *See* ¶¶ 15-16, *supra*

suggest that we should at least augment the technical requirements for AMS(R)S in the 5000-5150 MHz band in order to protect microwave landing systems (MLS).[295] Globalstar, however, contends that the Commission should not impose any new technical requirements for AES used in the provision of AMS(R)S in these bands, but should instead allow licensees to operate pursuant to the existing Part 25 requirements for satellite systems in these bands.[296] We request comment on whether we need to adopt additional technical requirements for AMS(R)S operations either to protect MLS or for any other reason. Commenters are requested to suggest any appropriate rule amendments and to indicate whether, in their view, new technical requirements are warranted for all AMS(R)S operations, need only apply to AMS(R)S operations in certain frequency bands, or why no amendments are appropriate.

83 *Use of the 2 GHz Band.* Boeing requests that the Commission codify its policy of permitting AMS(R)S in any MSS band.[297] Boeing requests that we amend the Part 87 Rules to specify that the 2 GHz band, in addition to the 1610-1626.5 MHz and 5000-5150 MHz bands, is available for AMS(R)S, and to establish emission limitations and other requirements for such AMS(R)S operations.[298] In contrast, Globalstar states that, unlike the situation with respect to the 1610-1626.5 MHz and 5000-5150 MHz bands, there currently is no allocation either in the United States or internationally for Aeronautical Radionavigation Service in the 2 GHz band.[299] We note, as a preliminary matter, that the Commission has indeed determined that AMS(R)S is a type of Aeronautical Mobile-Satellite Service (AMSS), and that AMSS is a type of MSS.[300] However, the Commission did not propose in the *NPRM* to include the 2 GHz band as part of the additional spectrum to be authorized for AMS(R)S operations under Part 87. We hereby invite further comment on whether we should amend Part 87 to provide technical rules to govern AMS(R)S in the 2 GHz band.

C. Former Civil Air Patrol Frequencies

84 In the *Report and Order*, we removed all Part 87 references to the CAP as obsolete.[301] This included removing references to the CAP from the Remarks column in the Section 87.173(b) frequency table and, as an interim measure, indicating that the frequencies in question are reserved. We now request

[295] FAA Comments at 3 (stating that, in the 5000-5150 MHz band, "any AMS(R)S technical characteristics, including spurious emission, must be designed to give full protection to MLS in the band 5030-5150 MHz"); Boeing Comments at 5 (stating that, in authorizing AMS(R)S in the 5000-5150 MHz band, the Commission should "stress the need to protect" MLS).

[296] Globalstar Reply Comments at 7.

[297] Boeing Comments at 5 (citing *2 GHz Band Order*, 15 FCC Rcd at 16155 ¶ 64; The Boeing Company, Concerning Use of the 1990-2025/2165-2200 MHz and Associated Frequency Bands for a Mobile-Satellite System, *Order and Authorization*, 16 FCC Rcd 13691, 13704 ¶ 36 (IB 2001)), Boeing Reply Comments at 1-2.

[298] *Id.* Boeing states that there is no need to mandate priority and real-time preemptive access for AMS(R)S in the 2 GHz band. Boeing and Globalstar refer to the 1990-2025 MHz band as the relevant 2 GHz spectrum in this context because the 1990-2025 MHz band was allocated in its entirety to MSS when they filed their comments. Since the close of the pleading cycle in this proceeding, however, the Commission has reallocated the 1990-2000 MHz and 2020-2025 MHz band segments for new fixed and mobile services, including Advanced Wireless Services. *See* Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, Including Third Generation Wireless Systems, *Third Report and Order, Third Notice of Proposed Rulemaking and Second Memorandum Opinion and Order*, ET Docket No. 00-258, 18 FCC Rcd 2223, 2238 ¶ 28 (2003). Accordingly, only the 2000-2020 MHz band is now allocated to MSS. To avoid confusion, we refer to the "2 GHz band" throughout the discussion in the text, and here clarify that we are contemplating the possible allocation of only the 2000-2020 MHz band for AMS(R)S.

[299] Globalstar Reply Comments at 6 n.7.

[300] *See 2 GHz Band Order*, 15 FCC Rcd at 16155 ¶ 64, and cases cited therein.

[301] *See* ¶ 47, *supra*.

commenters to propose the services, if any, to which these frequencies should be reallotted, keeping in mind that these are shared Government/non-Government frequencies [302] Commenters are also asked to consider whether any or all of these frequencies should simply be removed from Section 87.173(b) so that they are no longer available for licensing under Part 87 [303]

D. Removal of the Radionavigation Allocation in the Ku-Band

85 Boeing proposes that the Commission remove the reference to the 14000-14400 MHz band in Section 87 187(x) of the Rules[304] and also remove from the Table of Frequency Allocations[305] the allocation for radionavigation in the 14000-14200 MHz band.[306] According to Boeing, there is no existing or planned use of the band for radionavigation in ITU Region 2,[307] either by Government or non-Government users.[308] In addition, Boeing claims that it has confirmed the absence of radionavigation operations in the band from ITU, FAA, ICAO, International Maritime Organization, U. S. Coast Guard and Canadian Coast Guard officials, and that FAA spectrum management personnel have verified that there are no plans to use any frequencies in the 14000-14400 MHz band for aviation services in the future [309] We tentatively agree with Boeing, and accordingly propose to remove these Ku-Band allocations for radionavigation from the Table of Frequency Allocations and the Part 87 Rules.[310]

E. HF Frequency Bands

86 The FAA proposes that we amend the frequency table in Section 87.173(b) of our Rules by replacing the existing frequency listings that fall within the HF AM(R)S frequency bands with entries for the band segments 2850-3025 kHz, 3400-3500 kHz, 4650-4700 kHz, 5450-5680 kHz, 6525-6685 kHz, 8815-8965 kHz, 10005-10100 kHz, 11275-11400 kHz, 13260-13360 kHz, 17900-17970 kHz, and 21924-22000 kHz [311] The FAA also proposes that we delete the table of international HF frequencies in Section

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[302] The frequencies in question are 2371 kHz, 2374 kHz, 4466 kHz, 4469 kHz, 4506 kHz, 4509 kHz, 4582 kHz, 4585 kHz, 4601 kHz, 4604 kHz, 4627 kHz, 4630 kHz, 26618 5 kHz, 26620 kHz, 26621 5 kHz, 143.75 MHz, 143 9 MHz. and 148 15 MHz

[303] At this time, we do not anticipate keeping the frequencies 26618 5 kHz, 26620 kHz, 26621.5 kHz, 143.75 MHz, or 143 9 MHz in the Section 87 173 table because they allocated exclusively for Government use. In addition, the frequency 148 15 MHz is allocated for "Little LEO" uplinks, so we also anticipate removing that frequency

[304] 47 C F R § 87 187(x) (listing frequencies available for airborne radionavigation devices).

[305] 47 C.F.R § 2 106

[306] Boeing Comments at 14-15

[307] The ITU *Radio Regulations* categorize the world into three regions. Region 1, covering A frica, Europe, and Northern and Western portions of Asia, Region 2, covering the Americas and Greenland, and Region 3, covering Southern portions of Asia, Australia and the South Pacific See ITU *Radio Regulations* Article S5, Section I

[308] Boeing observes that the Commission's International Bureau and the Office of Engineering and Technology have stated that they are unaware of any such use Boeing Comments at 14 (citing The Boeing Company, Application for Blanket Authority to Operate Up to Eight Hundred Technically Identical Transmit and Receive Mobile Earth Stations Aboard Aircraft in the 14.0-14 5 GHz and 11.7-12 2 GHz Frequency Bands, *Order and Authorization*, 16 FCC Rcd 22645 (IB/OET 2001))

[309] *Id* at 14-15

[310] The designation of the 14000-14200 MHz band for radionavigation also appears in Part 80 of the Rules, and we propose to amend the Part 80 Rules, as well as the Part 87 Rules and Section 2 106, to remove the designation. We also propose, as a nonsubstantive measure, to remove no-longer-accurate designations of certain other frequency bands for radionavigation because the bands are no longer allocated for radionavigation, and the Section 2.106 Table of Frequencies already reflects that fact

[311] FAA Comments at 15-16

87 263(d)[312] and replace it with a note indicating that the subject frequencies are to be used in accordance with Appendix 27 of the ITU *Radio Regulations*.[313] We tentatively conclude that adopting these proposals would further the Commission's goals of harmonizing the Part 87 Rules with international standards and is otherwise in the public interest. We invite comment on this proposal.

F. Increased Operational Flexibility

87. In the *Report and Order*, we removed the restriction limiting the use of the 121.6-121.95 MHz frequencies to ground control, and allowed these frequencies to be used for general purpose air traffic control communications.[314] The restriction was removed in the interest of enhancing the FAA's flexibility to manage its spectrum resources in response to changing needs.[315] We also expanded the authorized use of the 121.975-122.675 MHz flight service station frequencies to permit air traffic control operations.[316] Toward the same end, the FAA requests that we also amend Section 87.421 of the Rules[317] to make the frequency bands listed therein,[318] which currently are available only to control towers and RCOs, available for ground control communications.[319] We agree that such operational flexibility is desirable in order to address congestion in the VHF air traffic control channels. As a result, we now propose to revise the Rules to permit the FAA to use the three remaining frequency bands listed in Section 87.421 of the Commission's Rules – 118-121.4 MHz, 123.6-128.8 MHz, and 132.025-135.975 MHz – for air traffic control communications, including ground control communications.[320] We seek comment on this proposal.

G. Emergency Watch ELT[321]

88. In July 2000, the Chief of the Public Safety and Private Wireless Division, Wireless Telecommunications Bureau, granted a waiver to Breitling U.S.A., Inc. to permit certification of the Breitling Emergency Watch, a back-up safety device designed to supplement conventional 121.5 MHz ELTs.[322] By way of background, the Breitling Emergency Watch is intended to be used by survivors of air crashes to facilitate identification of the crash site location by search and rescue personnel. The device

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[312] 47 C.F.R. § 87.263(d)

[313] FAA Comments at 16

[314] *See* ¶ 33, *supra*

[315] *Id*

[316] *Id*

[317] 47 C.F.R. § 87.421

[318] 118-121.4 MHz, 121.6-121.925 MHz, 123.6-128.8 MHz, and 132.025-135.975 MHz

[319] FAA Reply Comments at 2. Pursuant to 47 C.F.R. § 87.421(c), the 121.6-121.925 MHz frequencies are already available to control towers and RCOs for communications with ground vehicles and aircraft on the ground. The FAA proposes to add the three other frequency bands to this paragraph.

[320] Commenters may also address our tentative conclusion that any updating of 47 C.F.R. § 87.133(a) that is needed to remove obsolete table entries and footnotes may be accomplished as a nonsubstantive editorial rule amendment that does not have to be the subject of notice and comment rulemaking processes. *See* n.100, *supra*.

[321] An ELT is a small transmitter carried by an aircraft that is activated automatically in the event of a crash. The ELT transmits signals to alert others of the distress situation and to assist search and rescue units in "homing-in" on the aircraft or vessel. *See* Amendment of Parts 80 and 87 of the Commission's Rules to Authorize Additional Types of Modulation for Emergency Position Indicating Radiobeacons and Emergency Locator Transmitters in the Maritime and Aviation Services, *Report and Order*, PR Docket No. 87-133, 3 FCC Rcd 1027 ¶ 3 (1988).

[322] Letter, dated July 9, 2000, from D'wana R. Terry, Chief, Public Safety and Private Wireless Division, Federal Communications Commission, to Breitling U.S.A., Inc. (*Breitling Waiver Letter*)

is designed to be worn on a person's wrist, and is activated by breaking a cap and uncoiling an antenna from the watch case [323] A waiver was needed to certify this device because it did not comply with many of the Part 87 technical requirements applicable to aviation ELTs, including the requirements pertaining to power characteristics,[324] transmitter control requirements,[325] operating temperature,[326] and battery labeling.[327] The initial waiver was granted on a one-year trial basis, subject to four conditions requested by IRAC.[328] In October 2001, the one-year limitation was eliminated.[329] This action was supported by the FAA, the Aircraft Owners and Pilots Association, and other commenters, based on the public safety benefits of the Breitling Emergency Watch and in the absence of significant interference problems stemming from its use during the one-year trial period [330]

89 We now request comment on whether we should amend the Part 87 Rules to permit certification of the Breitling Emergency Watch and similar devices without need of a waiver of the regulations governing ELT technical characteristics If commenters conclude that we should amend the Part 87 Rules, they should also indicate what particular amendments would be appropriate. We tentatively conclude that permitting such devices will promote public safety by providing an accurate and rapid means by which search and rescue personnel can locate the victims of an air crash or other aviation distress incident We ask commenters whether the only rules that need to be amended are those waived in the context of the *Breitling Waiver Order*, or whether there are additional rules that should also be amended [331] Moreover, we seek comment on whether we should incorporate into the Rules the conditions that apply to the current waiver, namely, the requirement that the device be operated only in aviation emergency situations, and the requirement for the manufacturer to keep records of all purchases, to provide the records on a regular basis to the FAA, and otherwise to the Federal Government upon request. Finally, we seek comment on the possibility of requiring that all such devices be designed for single use and manual activation, like the Breitling Emergency Watch

H. Station Identification of Aircraft Operated by Maintenance Personnel

90. In July 2002, the Chief, Public Safety and Private Wireless Division, Wireless

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[323] Letter, dated April 30, 2001, from Aaron M Panner, counsel for Breitling, to D'wana R Terry, Chief, Public Safety and Private Wireless Division, Federal Communications Commission

[324] *See* 47 C F R § 87.141(i).

[325] *See* 47 C F R § 87 143(d)(4)

[326] *See* 47 C F R § 87.147(a)

[327] *See* 47 C F R § 87 147(b)

[328] The four conditions were: (1) the Breitling Emergency Watch could be sold only to licensed pilots, (2) the device could be operated only in aviation emergency situations, (3) the device could be sold and operated on a one-year trial basis subject to immediate termination at the request of the FAA if the device caused interference to other aviation communications, and (4) Breitling would have to provide records of all purchases, including pilot license number, to the FAA every month during the one-year test period, and otherwise make the records available to the Federal Government on request *Breitling Waiver Letter* at 3-4

[329] Breitling U S A , Inc , *Order*, 16 FCC Rcd 18560 (WTB PSPWD 2001) (*Breitling Waiver Order*).

[330] *Id* at 18561 ¶ 6 At Breitling's request, and again with the concurrence of the commenters, the condition that the device be sold only to licensed pilots was removed. *Id* at 18562 ¶ 7

[331] In addition to four rules cited in footnotes 324 through 327, *supra*, the *Breitling Waiver Order* waived Section 87 193 of the Rules, 47 C F R § 87 193, which requires ELTs to be operated as part of an aircraft station or survival craft station *Id.* at 18562 ¶ 7

Telecommunications Bureau, responding to a request by the FAA,[332] granted a waiver of Section 87.107(a) of the Rules[333] to permit use of a different station identification format by aircraft that are operated by maintenance personnel moving the aircraft from one airport location to another.[334] Specifically, the waiver permits aircraft being taxied from one airport location to another by maintenance personnel, to use a station identification which consists of the name of the company owning or operating the aircraft, followed by the word "Maintenance" and whatever additional alphanumeric characters the licensee deems sufficient to avoid duplicative or confusing station identifications.[335] This waiver was granted in response to the FAA's assertion that problems in communications between air traffic ground controllers and aircraft maintenance personnel moving aircraft within an airport had resulted in runway incursions and other threats to airport safety, and that these problems could be reduced by grant of the requested waiver.[336] We now propose to codify the terms of this waiver in Section 87.107(a) of the Commission's Rules by establishing a new station identification format that may be used for aircraft operated by maintenance personnel within an airport. That is, we propose to amend Section 87.107(a) to authorize aircraft stations, on aircraft being moved within the airport by maintenance personnel, to use a station identification consisting of the name of the owner or operator of the aircraft, followed by the word "Maintenance" and whatever additional alphanumeric characters the licensee deems sufficient to avoid duplicative or confusing station identifications. We request comment on our proposal.

I. Aircraft Stations on Ultralight Aircraft

91. As noted previously, we did not receive any comments in response to the question in the *NPRM* as to whether and how the individual licensing of aircraft stations operating from ultralight aircraft might be terminated without compromising the safety of life and property.[337] The absence of comments on this question suggests a lack of interest in continued licensing of aircraft stations on ultralight aircraft. Given our understanding that other station identification alternatives are available for aircraft stations on ultralight aircraft, including the acquisition of "N" numbers, we therefore propose to eliminate the requirement in Section 87.107(a)(2) of the Commission's Rules that FCC control numbers be assigned to ultralight aircraft for station identification purposes.[338] We ask commenters to address our tentative conclusion that there are alternative means by which aircraft stations on ultralight aircraft may identify themselves, particularly the "N" number-based format described in current Section 87.107(a)(3).[339]

J. Security Control of Air Traffic and Air Navigation Aids

92. Section 87.395 of the Commission's Rules contains provisions pertaining to the Plan for the Security Control of Air Traffic and Air Navigation Aids (SCATANA).[340] SCATANA defines the responsibilities of the Commission for the security control of non-Federal air navigation aids.[341] In

[332] *See* Letter, transmitted via Feb. 26, 2002 facsimile, from Richard K. Peterson, Manager, Air Traffic Division, Great Lakes Region, Federal Aviation Administration, to Kim Kleppinger, Public Safety and Private Wireless Division, Wireless Telecommunications Bureau, Federal Communications Commission.

[333] 47 C.F.R. § 87.107(a)

[334] Federal Aviation Administration, *Order*, 17 FCC Rcd 13637 (WTB PSPWD 2002).

[335] *Id.* at 13639 ¶ 7

[336] *Id.* at 13637 ¶ 3

[337] *See* ¶ 72, *supra*

[338] 47 C.F.R. § 87.107(a)(2)

[339] 47 C.F.R. § 87.107(a)(3)

[340] 47 C.F.R. § 87.395

[341] 47 C.F.R. § 87.395(a)

furtherance of the national security purposes underlying SCATANA, the Commission has developed the FCC Support Plan for the Security Control of Non-Federal Air Navigation Aids (Support Plan), which sets forth procedures and instructions to be followed when SCATANA is implemented, permitting the use of such navigation aids by the military and by government agencies Section 87.395 provides, *inter alia*, that all licensees are subject to restrictions imposed by appropriate military authorities pursuant to SCATANA and the FCC Support Plan when an Air Defense Emergency or Defense Emergency exists or is imminent [342] In view of post-September 11 developments, such as the creation of the Department of Homeland Security and the comprehensive review of the nation's national security preparedness, we believe that it is appropriate to invite comment on whether changes to SCATANA, the Support Plan, or Section 87 395 may be warranted. Proponents of such changes should precisely identify the changes that are advocated and provide an analysis of how the proposed changes would further national security.

V. CONCLUSION

93 In the *Report and Order*, we adopt a number of amendments that modernize the Part 87 Rules in a manner that will enhance aviation safety, facilitate the deployment of new technologies, encourage innovation in the aviation and the avionics equipment industries, harmonize our Rules with international standards, and maximize spectral efficiency while maintaining important safeguards against interference. In the *Further Notice of Proposed Rule Making*, we seek comment on a number of possible additional changes to Part 87 that have the potential to further these same objectives.

VI. REGULATORY MATTERS

A. Ex Parte Rules - Permit-But-Disclose Proceeding

94. This is a permit-but-disclose notice and comment rulemaking proceeding. *Ex parte* presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed as provided in our Rules [343]

B. Final Regulatory Flexibility Certification

95 The Regulatory Flexibility Act of 1980, as amended (RFA),[344] requires that a regulatory flexibility analysis be prepared for notice-and-comment rule making proceedings, unless the agency certifies that "the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities."[345] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[346] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act [347] A "small business concern" is one which· (1) is independently owned and

[342] 47 C F R § 87 395(b)(1)

[343] *See generally* 47 C F R §§ 1 1202, 1 1203, 1 1206(a)

[344] The RFA, *see* 5 U.S C § 601 – 612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub L No 104-121, Title II, 110 Stat 857 (1996).

[345] 5 U S C § 605(b)

[346] 5 U S C § 601(6)

[347] 5 U S C § 601(3) (incorporating by reference the definition of "small-business concern" in the Small Business Act, 15 U S C § 632) Pursuant to 5 U S C § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register "

operated, (2) is not dominant in its field of operation, and (3) satisfies any additional criteria established by the Small Business Administration (SBA) [348]

96 The purpose of this *Report and Order and Further Notice of Proposed Rule Making* is to streamline and update our Part 87 Rules governing the Aviation Radio Service. We believe the rules adopted in the *Report and Order* do not impose any additional compliance burden on small entities

97 We have identified those small entities that could conceivably be affected by the rule changes adopted herein Small businesses in the aviation and marine radio services use a marine very high frequency (VHF) radio, any type of emergency position indicating radio beacon (EPIRB) and/or radar, a VHF aircraft radio, and/or any type of emergency locator transmitter (ELT). The adopted rules may also affect small businesses that manufacture radio equipment However, we anticipate that these rule changes will not impose any new burdens on small entities, but in fact will reduce regulatory and procedural burdens on small entities The general effect of the rule changes adopted herein is to streamline the rules, remove duplicative requirements, provide greater operational flexibility, promote spectrum efficiency, facilitate equipment certification, and make our rules consistent with international requirements, all of which are measures that should have an overall beneficial effect on the regulated entities.[349] We certified in the *Notice of Proposed Rule Making* in this proceeding that the rules proposed therein would not, if promulgated, have a significant economic impact upon a substantial number of small entities, as that term is defined by the RFA,[350] and no party has challenged or otherwise commented on that certification

98 We therefore certify that the requirements of this *Report and Order* will not have a significant economic impact upon a substantial number of small entities, as that term is defined by the RFA.

99. The Commission will send a copy of this *Report and Order*, including a copy of this final certification, in a report to Congress pursuant to the Congressional Review Act.[351] In addition, the *Report and Order* and this final certification will be sent to the Chief Counsel for Advocacy of the Small Business Administration, and will be published in the Federal Register.[352]

C. Comment Dates

100 Pursuant to Sections 1.415 and 1 419 of our Rules, 47 C F.R. §§ 1.415, 1.419, interested parties may file comments on or before [90 days after Federal Register publication] and reply comments on or before [120 days after Federal Register publication] Comments may be filed using the Commission's Electronic Filing System (ECFS) or by filing paper copies [353]

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[348] 15 U S C § 632

[349] *See, e g*, ¶ 27 (clarifying that sign-in and sign-out signatures are not required for automatic station logs and otherwise clarifying the log requirements), ¶ 31 (allowing certification of 8 33 kHz channel spacing transmitters without a waiver), ¶ 33 (providing for more flexible use of certain air traffic control frequencies), ¶ 35 (allowing certification of equipment that can operate both within and outside of the civil aviation bands), ¶ 37 (eliminating 21-day waiting period before an equipment authorization application can be approved); ¶ 40 (extending the terms of non-aircraft station licenses from five to ten years), ¶ 41 (extending the construction period for unicom and radionavigation land stations from eight months to one year), and ¶ 43 (authorizing use of an additional emission type), *supra*

[350] *NPRM*, 16 FCC Rcd at 19040-41

[351] *See* 5 U S C § 801(a)(1)(A)

[352] *See* 5 U S C § 605(b)

[353] *See* Electronic Filing of Documents in Rulemaking Proceedings, *Report and Order*, GC Docket No 97-113, 13 FCC Rcd 11322 (1998)

101 Comments filed through the ECFS can be sent as an electronic file via the Internet to <http //www fcc gov/e-file/ecfs html> Generally, only one copy of an electronic submission must be filed If multiple docket or rulemaking numbers appear in the caption of this proceeding, however, commenters must transmit one electronic copy of the comments to each docket or rulemaking number referenced in the caption In completing the transmittal screen, commenters should include their full name, Postal Service mailing address, and the applicable docket or rulemaking number Parties may also submit an electronic comment by Internet e-mail To get filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc gov, and should include the following words in the body of the message, "get form <your e-mail address>" A sample form and directions will be sent in reply. Parties who choose to file by paper must file an original and four copies of each filing If more than one docket or rulemaking number appears in the caption of this proceeding, commenters must submit two additional copies for each additional docket or rulemaking number. All filings must be addressed to the Commission's Secretary, Marlene H Dortch, Office of the Secretary, Federal Communications Commission, 445 12th St., S W , Washington, D C 20554 Filings can be sent first class by the U S Postal Service, by an overnight courier or hand and message-delivered. Hand and messenger-delivered paper filings must be delivered to 236 Massachusetts Avenue, N E , Suite 110, Washington, D C 20002 The filing hours at this location are 8 00 a m to 7 00 p m Filings delivered by overnight courier (other than U S Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.

102 Parties who choose to file by paper should also submit their comments on diskette. These diskettes should be submitted to Jeffrey Tobias, Esq , Public Safety and Private Wireless Division, Wireless Telecommunications Bureau, 445 12th St , S W , Room 2-C828, Washington, D.C. 20554 Such a submission should be on a 3 5-inch diskette formatted in an IBM-compatible format using Microsoft Word 2002 or compatible software The diskette should be accompanied by a cover letter and should be submitted in "read only" mode The diskette should be clearly labeled with the commenter's name, proceeding (including the lead docket number in this case, WT Docket No. 01-289), type of pleading (comment or reply comment), date of submission, and the name of the electronic file on the diskette The label should also include the following phrase "Disk Copy - Not an Original" Each diskette should contain only one party's pleadings, preferably in a single electronic file. In addition, commenters should send diskette copies to the Commission's copy contractor, Qualex International, Inc , 445 12th Street, S W , Room CY-B402, Washington, D C 20554

D. Paperwork Reduction Act

103. This *Report and Order and Further Notice of Proposed Rule Making* does not contain any new or modified information collection

E. Ordering Clauses

104. Accordingly, IT IS ORDERED that, pursuant to the authority of Sections 4(i), 303(r), and 332(a)(2) of the Communications Act of 1934, as amended, 47 U S.C §§ 154(i), 303(r), 332(a)(2), Parts 2, 87, and 95 of the Commission's Rules ARE AMENDED as set forth in the attached Appendix A, effective sixty days after publication in the Federal Register

105 IT IS FURTHER ORDERED that, pursuant to Sections 4(i), 303(r), and 403 of the Communications Act of 1934, as amended, 47 U S.C. §§ 154(i), 303(r) and 403, this *Further Notice of Proposed Rule Making* IS HEREBY ADOPTED, and NOTICE IS HEREBY GIVEN of the proposed regulatory changes described in the *Further Notice of Proposed of Rule Making*

106 IT IS FURTHER ORDERED that the requests of the Federal Aviation Administration to file late-filed comments and late-filed reply comments ARE GRANTED and the late-filed comments and reply comments of the Federal Aviation Administration are HEREBY ACCEPTED into the record in this proceeding.

107 IT IS FURTHER ORDERED that the Commission's Consumer Information Bureau, Reference Information Center, SHALL SEND a copy of this *Report and Order and Further Notice of Proposed Rule Making*, including the Final Regulatory Flexibility Certification and Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

F. Further Information

108 For further information, contact Jeffrey Tobias, jtobias@fcc.gov, or Ghassan Khalek, gkhalek@fcc gov, Policy and Rules Branch, Public Safety and Private Wireless Division, Wireless Telecommunications Bureau, (202) 418-0680, or TTY (202) 418-7233

109 Alternative formats (computer diskette, large print, audiocassette and Braille) are available to persons with disabilities by contacting Brian Millin at (202) 418-7426, TTY (202) 418-7365, or at bmillin@fcc gov. This *Report and Order and Further Notice of Proposed Rule Making* can also be downloaded at http //www fcc gov/dtf/

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary